

REMARKS

Claims 1-7 are pending in the application. Applicant amends claims 1 and 3 for further clarification. No new matter has been added.

Applicant, again, acknowledges with appreciation the Examiner's allowance of claims 5-6.

Claim 3 stands rejected under 5 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter of the invention. Applicant amends claim 3 in accordance with the Examiner's suggested interpretation, and respectfully requests that the Examiner withdraw the rejection.

Claims 1, 2, and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0071148 to Ozaki et al. in view of U.S. Patent Application Publication No. 2005/0021603 to Yokomitsu et al.; and claims 3-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ozaki et al. in view of U.S. Patent Application Publication No. 2005/0100008 to Miyata et al., and further in view of U.S. Patent Application Publication No. 2004/0024860 to Sato et al. Applicant amends claims 1 and 3 in a good faith effort to clarify the invention as distinguished from the cited references, and respectfully traverses the rejections.

Ozaki et al. describe that,

“It is therefore an object of the present invention to provide a gateway device which can assign an unique IP address even to a device (which will be referred to as the non-IP device, hereinafter) connected to a network (which will be referred to as the non-IP network, hereinafter) other than the IP function network and can communicate with a device (which will be referred to as the IP device, hereinafter) connected to an IP network.” Paragraph [0005] of Ozaki et al.

Thus, Ozaki et al., in paragraph [0005] thereof, only describe assigning a unique IP address to a non-IP device connected to a non-IP network. And contrary to the Examiner's assertions, such portion of Ozaki et al. do not include any disclosure that the unique IP address is generated by using only all of the position identifier portions registered in a routing table. Furthermore, Ozaki et al., as cited and relied upon by the Examiner, fail to disclose generating an IPv6 address without using information on a port and information on an apparatus (non-IP device) connected to the port. Still further, Ozaki et al. fail to disclose generating an IPv6 address that is different from all of IP addresses registered in a routing table by comparing with all of IP addresses registered in it.

Fig. 5 of Ozaki et al. illustrates a translation table that translates an address of a non-IP device between local address and IPv6 address, but is not a routing table.

Ozaki et al. describe, in paragraph [0046] thereof, that,

“In translation table registration process 500, the gateway first receives the registration data 700 sent from the non-IP device 100 (step 501). Next, the gateway judges whether or not to have already received the network ID in the IPv6 (step 502). When the gateway fails to receive the network ID in the IPv6, the gateway acquires the network ID from portable phone 130 and stores it in the main memory 112. When the gateway already receives network ID, the gateway proceeds to a step 504. The gateway generates an IPv6 address on the basis of interface ID 702 of the registration data 700 received in the step 501 or the network ID acquired in the step 503 or the network ID previously acquired and held in the main memory 112...”

Accordingly, Ozaki et al. describe generating the new IPv6 address on the basis of the interface ID 702 or network ID. That is, Ozaki et al. describe generating the new IPv6 on the basis of one network ID in paragraph [0046].

And thus, Ozaki et al. fail to disclose generating the new IPv6 address on the basis of all of the network IDs of IPv6 registered in a routing table. Further, Ozaki et al. describe generating a new IPv6 based on the interface ID of a non-IP device. Accordingly, Ozaki et al. fail to disclose generating an IPv6 address without using information on a port and information on an apparatus (non-IP device) still connected to the port. Still further, Ozaki et al. fail to disclose generating an IPv6 address that is different from all of IPv6 addresses registered in a table by comparing with all of IP addresses registered in it.

The Examiner acknowledged that Ozaki et al. fail to disclose

“that said routing table is being referred to for routing a received IP packet *from an IP network* to an output route *on an output port to which is connected an IP network and the received IP packet is transmitted* corresponding to the destination position identifier portion of said received IP packet; and using *only* all of said position identifier portions registered in said routing table *without using information on the port and information on an apparatus connected to the port.*” Page 6, lines 11-17 of the Office Action. (Emphasis in original)

And the Examiner cited paragraphs [0005]-[0008] of Yokomitsu et al. as allegedly suggesting such features. Page 6, line 18 to page 7, line 12 of the Office Action.

Yokomitsu et al. describe, in paragraph [0006] thereof,

“The NAT feature converts the local address of a LAN device accessing the Internet 101 to a global address of the WAN port of the router 102...”

Accordingly, Yokomitsu et al. describe converting a local address of a LAN device accessing the Internet 101 to a global address of the WAN port of the router 102 in paragraph [0006] thereof. And Yokomitsu et al., therefore, fail to disclose generating a new IPv6 address.

Yokomitsu et al. describe, in paragraph [0007] thereof,

“In the actual process, a port number and an IP address conversion table must be previously set to the router 102 as shown in FIG. 16. In an access from Internet 101, the global IP address and the port number of the router are specified. The router 102, accepting this access, converts the global IP address to a local IP address as per the present conversion table. This conversion allows an access from the Internet 101 to a device having a local IP address in a LAN...”

Accordingly, Yokomitsu et al. only describe converting the global IP address to a local IP address in paragraph [0007] thereof. Yokomitsu et al., therefore, fail to disclose generating a new IPv6 address in paragraph [0007].

Accordingly, Yokomitsu et al., as cited and relied upon by the Examiner, fail to disclose or suggest the claimed features of newly-generating a position identifier portion by using only all position identifier portions registered in a routing table without using information on a port and information on an apparatus connected to the port when a determining unit determines that the position identifier portion is not assigned to the port, said newly-generated position identifier portion different from all of said position identifier portions registered in said routing table for a port being generated by comparing with all of said position identifier portions registered in said routing table without communicating with another apparatus.

In other words, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Ozaki et al. and Yokomitsu et al., such a combination would still have failed to disclose or suggest,

“[a] router for automatically generating an IP address comprising a position identifier portion and an interface identifier portion, said router comprising:

a routing table for storing each position identifier portion and information on an output route for the position identifier portion, said routing table being referred to for routing a received IP packet from an IP network to an output route on an output port

to which is connected an IP network and the received IP packet is transmitted corresponding to a destination position identifier portion of said received IP packet;

a determining unit for determining for each of a plurality of ports of said router whether a position identifier portion is assigned to an IP network to which the port is connected;

a position identifier portion generating unit for newly-generating a position identifier portion by using only all of said position identifier portions registered in said routing table without using information on the port and information on an apparatus connected to the port when said determining unit determines that the position identifier portion is not assigned to the port, said newly-generated position identifier portion different from all of the position identifier portions registered in said routing table for the port being generated by comparing with all of said position identifier portions registered in said routing table without communicating with another apparatus;

a routing unit for receiving routing information including a position identifier portion according to a dynamic routing protocol and registering the routing information in said routing table, and registering routing information including the position identifier portion generated by said position identifier portion generating unit in said routing table and notifying another router of the routing information; and

a position identifier portion advertising unit for advertising the generated position identifier portion from the port on the position identifier portion,” as recited in claim 1. (Emphasis added)

Advantageously, the claimed invention provides for simply generating a position identifier portion that is different from all of the position identifier portions registered in a routing table.

Accordingly, Applicants respectfully submit that claim 1, together with claims 2 and 7 dependent therefrom, is patentable over Ozaki et al. and Yokomitsu et al., separately and in combination, for at least the foregoing reasons.

The Examiner relied upon Miyata et al. and Sato et al. as combining references to specifically address the additional features recited in dependent claims 3 and 4. As such, a

further combination with these references would still have failed to cure the above-described deficiencies of Ozaki et al. and Yokomitsu et al., even assuming, *arguendo*, that such a further combination would have been obvious to one skilled in the art at the time the claimed invention was made. Accordingly, Applicant respectfully submits that claims 3-4 are patentable over the cited references for at least the foregoing reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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